

Application No.: 09/727,207

Attorney Docket No.: 10253-00136-US/RD8120USNA

REMARKS

Claims 1, 3-13 and 16 are pending in the application. Claims 14, 15 and 17-27 have been withdrawn from consideration. Reconsideration is respectfully requested.

In the outstanding Office Action, claims 1 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over the admitted prior art (APA) in view of Reinhardt (U.S. Patent No. 2,261,096) and Kajikawa et al. (U.S. Patent No. 5,834,087); claims 3-9, 11 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over the APA in view of Rienhardt and Kajikawa et al. and further in view of Gerlach et al. (U.S. Patent No. 4,361,609); and claims 13 and 16 were rejected as being unpatentable over the APA in view of Rienhardt and Kajikawa et al. and further in view of Hackler (U.S. Patent No. 4,871,604); claim 1 was rejected as being unpatentable over Tillotson et al. in view of Reinhardt, MacIsaac et al. (U.S. Patent No. 3,722,442) and Kajikawa et al.; claims 3-9 were rejected as being unpatentable over Tillotson et al. and Reinhardt, Kajikawa et al. and further in view of Gerlach et al.; and claim 10 was rejected as being unpatentable over Tillotson et al. and Reinhardt, Kajikawa et al.; and claims 11 and 12 were rejected as being unpatentable over Tillotson et al., Reinhardt, Kajikawa et al. and Gerlach et al. and further in view of Gregg (U.S. Patent No. 3,864,079).

Claims 1 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over the admitted prior art (APA) in view of Reinhardt (U.S. Patent No. 2,261,096) and Kajikawa et al. (U.S. Patent No. 5,834,087). Applicant respectfully traverses the rejection.

The admitted prior art discloses a standard Beck dye bath is used in conventional industry finishing processes during the flexing as a heating apparatus.¹ However, as shown in the specification, the claimed invention is different from a standard Beck dye bath. That is, the specification discloses that the standard Beck dye bath uses a roller to roll the carpet inside the bath, whereas the claimed invention clearly uses a more complex system than the standard Beck dye bath that repeatedly folds and counter-folds the backing in order to help the binder material propagate into the desired bond areas.² Therefore, the APA does not disclose the claimed invention.

¹ See Specification at page 2, line 20; page 9, line 9.

² *Id.* at page 2, line 1; page 9, line 2.

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In addition, the outstanding Office Action acknowledges additional deficiencies in the APA and attempts to overcome these deficiencies with Reinhardt and the Kajikawa et al.³ However, Reinhardt and the Kajikawa et al. cannot overcome the deficiencies in APA, as discussed below.

Reinhardt discloses a method for the formation of a needled felt product.⁴ In particular, Reinhardt discloses: (1) a layer of fiber is needled-punched into a base fabric; and (2) the *entire structure* is immersed to a tank of dilute adhesive (e.g., latex).⁵ That is, the *entire structure* is covered with *latex* to improve the durability of the product.⁶

However, Reinhardt nowhere discloses: “*applying an amorphous binding material having a predetermined melting point to the surface of the backing* (emphasis added),” as recited in amended claim 1. That is, the binder material is “amorphous” and applied to the “backing,” as recited in claim 1, in contrast to a binder material, preferably *latex*, that is applied to the *entire structure*, as disclosed by Reinhardt.

In addition, the claimed invention recites:

thereby to cause the binder material to melt and to flow and *concentrate in the root portion of the pile loops*, in the stitching thread underlaps holding the root portion to the backing, and near the surface of the backing adjacent to the root portions (emphasis added).

In contrast to the claimed invention, Reinhardt discloses:

feeding the needled fabric 10 is then *fed through a trough or tank* 12 containing an adhesive material 13 preferably constituted as a vulcanizable *latex* dispersion (emphasis added).⁷

That is, Reinhardt discloses coating the *entire surface of the fabric/pile loop*, whereas the claimed invention recites: “the binder material to melt and to flow and *concentrate in the root portion of the pile loops* (emphasis added).”

Further, as discussed above, the adhesive in Reinhardt is preferably latex. By definition latex is: “a water emulsion of a synthetic rubber or plastic obtained by polymerization.”⁸ More

³ Office Action dated July 29, 2004, at paragraph 3, page 3, lines 12-15; and page 4, lines .

⁴ Reinhardt at page 2, column 2, lines 16-29.

⁵ *Id.* at page 1, column 2, lines 4-25.

⁶ *Id.* at page 1, column 1, lines 23-30.

⁷ *Id.* at page 1, column 2, lines 8-10.

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specifically, Reinhardt discloses the latex is itself a suspension and thus, has *no melting point*. That is, the “amorphous thermoplastic binder material,” as recited in claim 1, has “a predetermined melting point.” In contrast, the latex suspension binder material disclosed by Reinhardt, has *no melting point* and thus, Reinhardt *does not disclose* the claimed invention. Thus, for the reasons discussed above, Reinhardt cannot overcome the deficiencies of the APA.

Kajikawa et al. discloses a tile carpet comprising a sealer layer [backing material] of a novel hot-melt type composition low in flammability and superior in a *sealing effect* (emphasis added).⁹ This sealing/backing layer is a composition of amorphous polyolefin.¹⁰ However, it is respectfully submitted that a “sealer” provides a sealant that avoids penetration and is not analagous to a “binder” or “binding material” that *must* provide an adhesive. That is, Kajikawa et al. discloses an amorphous polyolefin that is not analogous to the “*amorphous binding material* having a predetermined melting point *to the surface of the backing* (emphasis added),” as recited in amended claim 1. Thus, Kajikawa et al. cannot overcome the deficiencies of the APA.

Claim 10 is dependent on claim 1. As discussed above, the applied art does not disclose the invention of claim 1. Therefore, at least for the reasons discussed above, APA in view of Rienhardt and Kajikawa et al. does not disclose the invention of claim 10.

Therefore, it is respectfully submitted that claims 1 and 10 are not disclosed, suggested or made obvious by the APA, Reinhardt, or Kajikawa et al., whether taken alone or in combination, and that claim 1, and claims dependent thereon, patentably distinguish thereover.

Claims 3-9, 11 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over the APA in view of Rienhardt and Kajikawa et al., and further in view of Gerlach et al. Applicant respectfully traverses the rejection.

Claims 3-9, 11 and 12 are ultimately dependent upon claim 1. As discussed above, the applied art does not disclose the invention of claim 1. Therefore, at least for the reasons discussed above, APA in view of Rienhardt and Kajikawa et al. does not disclose the invention of claims 3-9, 11 and 12.

In addition, the outstanding Office Action acknowledges additional deficiencies in the APA, Reinhardt and Kajikawa et al. and attempts to overcome these deficiencies with Gerlach et

⁸ Merriam-Webster's New Collegiate Dictionary, 1983.

⁹ Kajikawa et al. at ABSTRACT.

¹⁰ *Id.* at col. 2, lines 62-64.

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al.¹¹ However, Gerlach et al. cannot overcome the deficiencies in APA, Reinhardt and Kajikawa et al. as discussed below.

Gerlach et al. discloses fibrillatable multi-component fibers of the matrix segment type and a process for production of fiber structures by splitting shrinkable, unset, multi-component fibers consisting of at least two incompatible components.¹² However, Gerlach et al. nowhere discloses: "*an amorphous binding material having a predetermined melting point to the surface of the backing* (emphasis added)," as recited in claim 1, upon which claims 3-9, 11 and 12 ultimately depend. Thus, Gerlach et al. cannot overcome the deficiencies in APA, Reinhardt and Kajikawa et al.

Therefore, it is respectfully submitted that claims 3-9, 11 and 12 are not disclosed, suggested or made obvious by the APA, Reinhardt, Kajikawa et al. or Gerlach et al., whether taken alone or in combination, and that claim 3-9, 11 and 12, and claims dependent thereon, patentably distinguish thereover.

Claims 13 and 16 were rejected as being unpatentable over the APA in view of Rienhardt and Kajikawa et al. and further in view of Hackler. Applicant respectfully traverses the rejection.

Claims 13 and 16 are ultimately dependent upon claim 1. As discussed above, the applied art does not disclose the invention of claim 1. Therefore, at least for the reasons discussed above, APA in view of Rienhardt and Kajikawa et al. does not disclose the invention of claims 13 and 16.

In addition, the outstanding Office Action acknowledges additional deficiencies in the APA, Reinhardt and Kajikawa et al. and attempts to overcome these deficiencies with Hackler et al.¹³ However, Hackler et al. cannot overcome the deficiencies in APA, Reinhardt and Kajikawa et al. as discussed below.

Hackler discloses a method in which a binding material is dispensed over the entire tufted pile surface.¹⁴ In particular, Hackler discloses the binder material has a relatively high range of melting points (i.e., 100 - 170°C) in comparison to that of the claimed invention which has "a melting point in the range from at least eighty-five (85) to at most ninety-five (95 °C)," as recited

¹¹ Office Action dated July 29, 2004, at paragraph 4, page 5, and lines 4-8.

¹² Gerlach et al. at Abstract.

¹³ Office Action dated July 29, 2004, at paragraph 5, page 6, and lines 7-10.

¹⁴ Hackler at Abstract.

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in claim 13. Therefore, the melting points of Hackler do not disclose the melting points of the claimed invention.

Further, an object of the present invention is to apply binder materials to the surface of the backing so as to make carpet at low temperatures and avoid the negative effects of high temperatures discussed above in regards to Hackler.¹⁵ In particular, the specification teaches that "temperatures in excess of approximately one hundred twenty degrees Centigrade (120°C) may adversely affect certain properties of the nylon material forming the pile elements."¹⁶ Thus, Hackler, which discloses melting points of 100 - 170°C, teaches away from the claimed invention. Therefore, for the reasons discussed above, Hackler does not make up for the deficiencies of Reinhardt.

Moreover, Hackler et al. nowhere discloses: "*an amorphous binding material having a predetermined melting point to the surface of the backing* (emphasis added)," as recited in claim 1, upon which claims 13 and 16 ultimately depend. Thus, Hackler et al. cannot overcome the deficiencies in APA, Reinhardt and Kajikawa et al.

Therefore, it is respectfully submitted that claims 13 and 16 are not disclosed, suggested or made obvious by the APA, Reinhardt and Kajikawa et al. or Hackler, whether taken alone or in combination, and that claims 13 and 16, and claims dependent thereon, patentably distinguish thereover.

Claim 1 was rejected as being unpatentable over Tillotson et al. in view of Reinhardt, MacIsaac et al. and Kajikawa et al. Applicant respectfully traverses the rejection.

As discussed above, Reinhardt and Kajikawa et al. do not disclose the invention of claim 1. The outstanding Office Action acknowledges additional deficiencies in the Reinhardt and Kajikawa et al. and attempts to overcome these deficiencies with Tillotson et al. and MacIsaac et al.¹⁷ However, Tillotson et al. and MacIsaac et al. cannot overcome the deficiencies in Reinhardt and Kajikawa et al. as discussed below.

Tillotson et al. discloses a tufted carpet coated with a fused thermoplastic resin on the underside of a tufted primary backing.¹⁸ However, Tillotson et al. nowhere discloses: "*applying an amorphous binding material having a predetermined melting point to the surface of the*

¹⁵ Specification at page 1, lines 19-28; and at page 2, lines 10-14.

¹⁶ *Id.* at page 1, lines 28-32.

¹⁷ Office Action dated July 29, 2004, at paragraph 6, page 7, lines 17-18; and page 8, lines 2-4

¹⁸ Tillotson et al. at Abstract.

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backing (emphasis added),” as recited in claim 1. Thus, Tillotson et al. cannot overcome the deficiencies in Reinhardt and Kajikawa et al., as discussed above.

MacIsaac et al. discloses a tufted pile fabric and method of making the same in which rows of pile tufts are formed extending upwardly from the upper face of a backing fabric or base.¹⁹ However, MacIsaac et al. nowhere discloses: “*applying an amorphous binding material having a predetermined melting point to the surface of the backing* (emphasis added),” as recited in claim 1. Thus, MacIsaac et al. cannot overcome the deficiencies in Tillotson et al., Reinhardt and Kajikawa et al., as discussed above.

Therefore, it is respectfully submitted that claim 1 is not disclosed, suggested or made obvious by the Tillotson et al., Reinhardt and Kajikawa et al. or MacIsaac et al. whether taken alone or in combination, and that claim 1, and claims dependent thereon, patentably distinguish thereover.

Claims 3-9 were rejected as being unpatentable over Tillotson et al. and Reinhardt, Kajikawa et al. and further in view of Gerlach et al. Applicant respectfully traverses the rejection.

Claims 3-9 are ultimately dependent upon claim 1. As discussed above, the applied art does not disclose the invention of claim 1. Therefore, at least for the reasons discussed above, Tillotson et al. in view of Reinhardt and Kajikawa et al. does not disclose the invention of claims 3-9.

In addition, the outstanding Office Action acknowledges additional deficiencies in Tillotson et al., Reinhardt and Kajikawa et al. and attempts to overcome these deficiencies with Gerlach et al.²⁰ However, Gerlach et al. cannot overcome the deficiencies in Tillotson et al., Reinhardt and Kajikawa et al. as discussed below.

Gerlach et al. discloses fibrillatable multi-component fibers of the matrix segment type and a process for production of fiber structures by splitting shrinkable, unset, multi-component fibers consisting of at least two incompatible components.²¹ However, Gerlach et al. nowhere discloses: “*an amorphous binding material having a predetermined melting point to the surface of the backing* (emphasis added),” as recited in claim 1, upon which claims 3-9 ultimately

¹⁹ MacIsaac et al. at Abstract.

²⁰ Office Action dated July 29, 2004, at paragraph 7, page 9, and lines 4-8.

²¹ Gerlach et al. at Abstract.

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depend. Thus, Gerlach et al. cannot overcome the deficiencies in Tillotson et al., Reinhardt and Kajikawa et al.

Therefore, it is respectfully submitted that claims 3-9 are not disclosed, suggested or made obvious by the Tillotson et al., Reinhardt, Kajikawa et al. or Gerlach et al., whether taken alone or in combination, and that claim 3-9 and claims dependent thereon, patentably distinguish thereover.

Claim 10 was rejected as being unpatentable over Tillotson et al. and Reinhardt, Kajikawa et al. Applicant respectfully traverses the rejection.

As discussed above, Tillotson et al., Reinhardt and Kajikawa et al. do not disclose the invention of claim 1 and claim 10. In addition, the outstanding Office Action acknowledges additional deficiencies in Tillotson et al., Reinhardt and Kajikawa et al. Therefore, it is respectfully submitted that Tillotson et al., Reinhardt and Kajikawa et al., whether taken alone or in combination, do not disclose, suggest or make obvious the invention of claim 10, and that claim 10, and claims dependent thereon, patentably distinguish thereover.

Claims 11 and 12 were rejected as being unpatentable over Tillotson et al., Reinhardt, Kajikawa et al. and Gerlach et al. and further in view of Gregg. Applicant respectfully traverses the rejection.

As discussed above, the applied art does not disclose the invention of claims 3-9. Claims 11 and 12 are dependent on claim 6 and claim 9, respectively. Therefore, at least for the reasons discussed above, Tillotson et al., Reinhardt, Kajikawa et al. and Gerlach et al. do not disclose the invention of claims 11 and 12.

In addition, the outstanding Office Action acknowledges additional deficiencies in Tillotson et al., Reinhardt and Kajikawa et al. and Gerlach et al. and attempts to overcome these deficiencies with Gregg.²² However, Gregg cannot overcome the deficiencies in Tillotson et al., Reinhardt, Kajikawa et al. and Gerlach et al. as discussed below.

Gregg discloses a method for continuously scouring and blooming an advancing pile carpet includes wetting the pile side of the carpet with hot water sprat, and then immersing the carpet in a first tank containing hot water.²³ However, Gregg nowhere discloses: "*an amorphous binding material having a predetermined melting point to the surface of the backing*

²² Office Action dated July 29, 2004, at paragraph 8, page 10, and lines 5-7.

²³ Gregg at Abstract.

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(emphasis added)," as recited in claim 1, upon which claims 11 and 12 ultimately depend. Thus, Gregg cannot overcome the deficiencies in Tillotson et al., Reinhardt, Kajikawa et al. and Gerlach et al.

Therefore, it is respectfully submitted that claims 3-9 are not disclosed, suggested or made obvious by the Tillotson et al., Reinhardt, Kajikawa et al., Gerlach et al., or Gregg, whether taken alone or in combination, and that claim 11 and 12, and claims dependent thereon, patentably distinguish thereover.

Conclusions

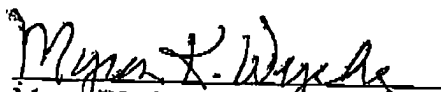
In view of the above, reconsideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

Applicant believes no fees are due with this request. However, the Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to Deposit Account No. 03-2775.

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Respectfully submitted,


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